VLA Sky Survey Data Access

Amy Kimball (NRAO)

VLASS data products

- Raw data (science data model "SDM" format): *NRAO archive*
- Calibrated data (measurement set / MS): *new archive interface*
- Calibration / imaging pipeline weblogs: *VLASS resources page*
- QuickLook images (with *rms* images): *VLASS resources page*
- Definition of sky tiled/observed regions: *VLASS resources page*
- Single epoch products: not yet available! *(VLASS resources page)*

NRAO archive

- Old interface: `archive.nrao.edu`
- New interface: `archive-new.nrao.edu`

VLASS resources page:

- `archive-new.nrao.edu/vlass/`

VLA Sky Survey Resources page

archive-new.nrao.edu/vlass/

National Radio Astronomy Observatory

VLA Sky Survey Resources

- Tile Definitions and Observing Status
- Calibration and Imaging Weblogs
- Quicklook Images
- Scrollable HiPS Quick Look images

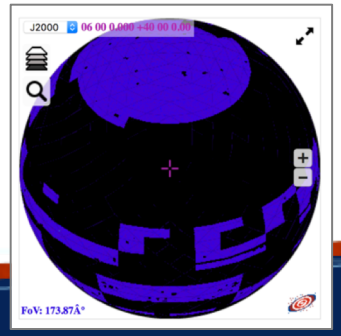
What's available?

How's the quality?

Download images

(not yet available via archive interface)

AladinLite map of published images



VLA Sky Survey Resources page

archive-new.nrao.edu/vlass/

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What's available?

Tile Definitions and Observing Status

Names correspond to Tier and tile identifiers, e.g., T24t09

Tile Name	Dec min (deg)	Dec max (deg)	RA min (h)	RA max (h)	Observing Epoch	Observation Date (UT)	Quick Look Status
T01t01	-40.00	-36.00	0.00	0.50	VLASS1.1	2018-02-07	100% imaged
T01t02	-40.00	-36.00	0.50	1.00	VLASS1.1	2018-02-03	100% imaged
T01t03	-40.00	-36.00	1.00	1.50	VLASS1.1	2018-02-02	100% imaged
T01t04	-40.00	-36.00	1.50	2.00	VLASS1.1	2018-02-04	100% imaged
T01t05	-40.00	-36.00	2.00	2.50	VLASS1.2		
T01t06	-40.00	-36.00	2.50	3.00	VLASS1.2		
T01t07	-40.00	-36.00	3.00	3.50	VLASS1.2		
T01t08	-40.00	-36.00	3.50	4.00	VLASS1.2		
T01t09	-40.00	-36.00	4.00	4.50	VLASS1.1	2018-02-07	100% imaged
T01t10	-40.00	-36.00	4.50	5.00	VLASS1.1	2018-02-03	100% imaged
T01t11	-40.00	-36.00	5.00	5.50	VLASS1.1	2018-02-15	50% imaged
T01t12	-40.00	-36.00	5.50	6.00	VLASS1.1	2018-02-04	100% imaged
T01t13	-40.00	-36.00	6.00	6.50	VLASS1.1	2018-02-07	100% imaged
T01t14	-40.00	-36.00	6.50	7.00	VLASS1.1	2018-02-03	100% imaged
T01t15	-40.00	-36.00	7.00	7.50	VLASS1.1	2018-02-15	50% imaged
T01t16	-40.00	-36.00	7.50	8.00	VLASS1.1	2018-02-04	100% imaged
T01t17	-40.00	-36.00	8.00	8.50	VLASS1.2		
T01t18	-40.00	-36.00	8.50	9.00	VLASS1.2		
T01t19	-40.00	-36.00	9.00	9.50	VLASS1.2		
T01t20	-40.00	-36.00	9.50	10.00	VLASS1.2		
T01t21	-40.00	-36.00	10.00	10.50	VLASS1.1	2018-02-03	100% imaged
T01t22	-40.00	-36.00	10.50	11.00	VLASS1.1	2018-02-06	100% imaged
T01t23	-40.00	-36.00	11.00	11.50	VLASS1.1	2018-02-14	100% imaged
T01t24	-40.00	-36.00	11.50	12.00	VLASS1.1	2018-02-11	100% imaged
T01t25	-40.00	-36.00	12.00	12.50	VLASS1.2		

Not true!
(observed twice)

VLA Sky Survey Resources page

archive-new.nrao.edu/vlass/

National Radio Astronomy Observatory

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How's the quality?

VLASS Calibration and Imaging Weblogs

VLA Sky Survey Pipeline Weblogs

Weblogs for VLA Sky Survey Calibration and Imaging Pipelines are used by VLASS Operations for Quality Assurance. They are named after the pipeline Job ID. Weblogs associated with individual Quick Look image products are archived with the Quick Look images.

Name	Last modified	Size	Description
Parent Directory		-	
calibration/	17-Mar-2018 16:29	-	
compression/	06-May-2018 13:18	-	
quicklook/	01-Jun-2018 02:13	-	

VLASS Calibration Weblogs

VLA Sky Survey Pipeline Weblogs

Weblogs for VLA Sky Survey Calibration and Imaging Pipelines are used by VLASS Operations for Quality Assurance. They are named after the pipeline Job ID. Weblogs associated with individual Quick Look image products are archived with the Quick Look images.

Name

Parent Directory
VLASS1.1_GOODSN_P27v1_2018_03_15T22_51_17.728/
VLASS1.1_Stripe82ABC3_P65v1_2018_03_15T22_52_58.306/
VLASS1.1_T01t01.T02t05.T01t09.T01t13_P25833v1_2018_02_08T21_02_52.209/
VLASS1.1_T01t02.T02t06.T01t10.T01t14_P22622v1_2018_02_05T19_54_09.408/
VLASS1.1_T01t03_P22376v1_2018_02_05T17_52_36.180/
VLASS1.1_T01t04.T02t08.T01t12.T01t16_P22838v1_2018_02_05T23_28_32.210/
VLASS1.1_T02t07.T01t11.T01t15_P23101v1_2018_02_13T07_59_43.903/
VLASS1.1_T02t07.T01t11.T01t15_P26328v1_2018_03_04T20_30_46.268/
VLASS1.1_T02t17.T01t21.T02t25.T01t29_P22403v1_2018_02_05T17_53_47.985/
VLASS1.1_T02t18.T01t22.T02t26.T01t30_P25725v1_2018_02_06T15_59_41.450/
VLASS1.1_T02t19.T01t23.T02t27.T01t31_P25617v1_2018_02_14T15_59_42.300/
VLASS1.1_T02t20.T01t24.T02t28.T01t32_P25509v1_2018_02_12T17_39_44.594/
VLASS1.1_T02t33.T02t37.T01t41.T02t45_P22511v1_2018_02_05T19_53_50.787/
VLASS1.1_T02t34.T02t38.T01t42.T02t46_P22727v1_2018_02_05T23_28_20.990/
VLASS1.1_T02t35.T02t39.T01t43.T02t47_P25398v1_2018_02_10T23_59_56.017/
VLASS1.1_T02t36.T02t40.T01t44.T02t48_P25287v1_2018_02_12T17_39_49.769/

VLASS Compression-Fix Weblogs

For -16 ≲ decl. ≲ 16 (Tiers 07 thru 14)

VLA Sky Survey Pipeline Weblogs

Weblogs for VLA Sky Survey Calibration and Imaging Pipelines are used by VLASS Operations for Quality Assurance. They are named after the pipeline Job ID. Weblogs associated with individual Quick Look image products are archived with the Quick Look images.

Name

Parent Directory
VLASS1.1_T07t02.T08t02_P21516v3_2018_05_04T18_25_13.146/
VLASS1.1_T07t07.T07t10_P21434v2_2018_02_28T19_45_10.382/
VLASS1.1_T07t08.T07t11_P21352v2_2018_02_15T19_01_59.909/
VLASS1.1_T07t09.T07t12_P21188v2_2018_02_23T21_30_29.613/
VLASS1.1_T07t16.T08t16_P22130v2_2018_02_09T20_33_35.170/
VLASS1.1_T07t17.T08t17_P24273v2_2018_02_09T18_55_50.697/
VLASS1.1_T07t18.T08t18_P22294v2_2018_03_02T20_57_00.639/
VLASS1.1_T07t22.T07t23.T07t24_P21598v3_2018_04_24T20_46_51.790/
VLASS1.1_T07t31.T07t33_P17483v2_2018_04_23T14_41_13.643/
VLASS1.1_T07t32.T07t01.T07t03_P16513v3_2018_04_23T18_17_37.303/
VLASS1.1_T08t01.T08t03_P18673v2_2018_04_20T17_16_50.624/
VLASS1.1_T08t07.T08t10_P18591v2_2018_04_20T19_35_29.196/
VLASS1.1_T08t08.T08t11_P21024v2_2018_02_23T22_33_06.299/

VLASS QuickLook image Weblogs

Weblogs for VLA Sky Survey Calibration and Imaging Pipelines are used by VLASS Operations for Quality Assurance. They are named after the pipeline Job ID. Weblogs associated with individual Quick Look image products are archived with the Quick Look images.

Name	Last modified	Size
Parent Directory		-
VLASS1.1.T01t01.J000228-363000.P25905v1_2018_04_12T23_15_12.148/	13-Apr-2018 17:06	-
VLASS1.1.T01t01.J000230-373000.P25899v1_2018_04_12T23_15_05.805/	14-Apr-2018 00:59	-
VLASS1.1.T01t01.J000232-383000.P25893v1_2018_04_12T23_14_59.442/	15-Apr-2018 09:29	-
VLASS1.1.T01t01.J000234-393000.P25887v1_2018_04_12T23_14_53.131/	14-Apr-2018 02:23	-
VLASS1.1.T01t01.J000724-363000.P25906v1_2018_04_12T23_15_13.197/	14-Apr-2018 06:01	-
VLASS1.1.T01t01.J000730-373000.P25900v1_2018_04_12T23_15_06.845/	14-Apr-2018 07:30	-
VLASS1.1.T01t01.J000736-383000.P25894v1_2018_04_12T23_15_00.467/	15-Apr-2018 20:28	-
VLASS1.1.T01t01.J000743-393000.P25888v1_2018_04_12T23_14_54.186/	14-Apr-2018 18:02	-
VLASS1.1.T01t01.J001221-363000.P25907v1_2018_04_12T23_15_14.252/	14-Apr-2018 10:26	-
VLASS1.1.T01t01.J001231-373000.P25901v1_2018_04_12T23_15_07.887/	15-Apr-2018 15:37	-
VLASS1.1.T01t01.J001231-373000.P25901v1_2018_04_16T22_30_37.810/	17-Apr-2018 16:31	-
VLASS1.1.T01t01.J001231-373000.P25901v1_2018_04_18T16_40_38.785/	23-Apr-2018 21:30	-
VLASS1.1.T01t01.J001241-383000.P25895v1_2018_04_12T23_15_01.550/	15-Apr-2018 20:09	-
VLASS1.1.T01t01.J001241-383000.P25895v1_2018_04_16T22_44_04.507/	17-Apr-2018 20:35	-
VLASS1.1.T01t01.J001252-393000.P25889v1_2018_04_12T23_14_55.234/	15-Apr-2018 08:20	-
VLASS1.1.T01t01.J001252-393000.P25889v1_2018_04_16T22_41_51.842/	18-Apr-2018 23:23	-
VLASS1.1.T01t01.J001252-393000.P25889v1_2018_04_19T15_47_46.348/	24-Apr-2018 13:55	-
VLASS1.1.T01t01.J001718-363000.P25908v1_2018_04_12T23_15_15.528/	14-Apr-2018 16:36	-

Tile name

Image center J2000 RA/dec

(unique pipeline job ID)

VLA Sky Survey Resources page

archive-new.nrao.edu/vlass/

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Download images

(not yet available via archive interface)

VLASS QuickLook images

Quick Look image products are 1x1 degree images of the 2-4GHz Stokes I continuum, and an associated image of the RMS.

Images are grouped by tiles, as described at Tile Definitions and Observing Status, and individual images are are named as follows:

- VLASS epoch (1.1=first half of first epoch; 1.2=second half of first epoch; 2.1=first half of second epoch, etc.)
- Product type (ql=Quick Look imaging)
- Tile name
- Image phase center
- Pixel size x10 (10=1.0arcsec)
- Bandwidth in MHz
- Version number
- Stokes type

Quick Look images do not fully sample the PSF, and are cleaned to a threshold of ~5 sigma (details can be found in the weblogs for individual images). They are used for Quality Assurance and for transient searches. They should not be used for any other purpose.

UPDATE, Nov 2017: We have found a VLA system issue that is resulting in "ghost" images of bright sources separated by approximately 3 arcmin in RA. These can be either +RA or -RA, depending on the scan direction of the affected OTF row. We are investigating and will re-post corrected images as and when they are identified.

Name	Last modified	Size	Description
Parent Directory		-	
VLASS1.1/	14-May-2018 11:21	-	

VLASS QuickLook images

Name	Last modified
Parent Directory	
QA_REJECTED/	31-May-2018 10:25
T01t01/	24-Apr-2018 14:49
T01t02/	02-Apr-2018 11:07
T01t03/	12-Mar-2018 17:11
T01t04/	02-Apr-2018 11:04

Enter one of the tile subdirectories.

These are directories for products for individual images:

Parent Directory		-
VLASS1.1.ql.T11t29.J184200+003000.10.2048.v1/	14-May-2018 11:21	-
VLASS1.1.ql.T11t29.J184200+013000.10.2048.v1/	14-May-2018 11:32	-
VLASS1.1.ql.T11t29.J184200+023000.10.2048.v1/	14-May-2018 11:34	-
VLASS1.1.ql.T11t29.J184200+033000.10.2048.v1/	14-May-2018 11:26	-
VLASS1.1.ql.T11t29.J184600+003000.10.2048.v1/	14-May-2018 11:21	-
VLASS1.1.ql.T11t29.J184600+013000.10.2048.v1/	14-May-2018 11:34	-

These are products for an individual images:

Parent Directory		-
VLASS1.1.ql.T11t29.J185801+033000.10.2048.v1.I.iter1.image.pbcor.tt0.rms.subim.fits	04-Jun-2018 09:10	53M
VLASS1.1.ql.T11t29.J185801+033000.10.2048.v1.I.iter1.image.pbcor.tt0.subim.fits	04-Jun-2018 09:10	53M
casa_commands.log	04-Jun-2018 09:10	10K
casa_pipescript.py	04-Jun-2018 09:10	878
parameter.list	04-Jun-2018 09:10	177
pipeline_manifest.xml	04-Jun-2018 09:10	574
weblog.tgz	04-Jun-2018 09:10	15M

VLASS QuickLook image products

	Parent Directory		-
1	VLASS1.1.ql.T27t02.J022204+673000.10.2048.v1.I.iter1.image.pbcor.tt0.rms.subim.fits	01-Feb-2018 11:39	53M
2	VLASS1.1.ql.T27t02.J022204+673000.10.2048.v1.I.iter1.image.pbcor.tt0.subim.fits	01-Feb-2018 11:39	53M
3	casa_commands.log	01-Feb-2018 11:39	9.8K
4	casa_pipescript.py	01-Feb-2018 11:39	883
5	parameter.16213.list	01-Feb-2018 11:39	177
6	pipeline_manifest.xml	01-Feb-2018 11:39	574
7	weblog.tgz	01-Feb-2018 11:39	11M

Want to run the pipeline yourself? (e.g., smaller image?)

1. This is the deviation image (e.g., rms of the sky image).
2. This is the actual image: the 1x1 deg^2 image of the sky.
3. CASA commands run by the image pipeline, with explanatory comments.
4. The high-level CASA pipeline script.
5. Input parameters for the imaging pipeline.
6. Look here for CASA version used (otherwise not needed).
7. Imaging pipeline weblog (can download & store offline)

VLASS imaging `casa_pipescript.py`

```
__rethrow_casa_exceptions = True
context = h_init()
context.set_state('ProjectSummary', 'proposal_code', 'VLA Prop Code')
context.set_state('ProjectSummary', 'observatory', 'Karl G. Jansky Very Large Array')
context.set_state('ProjectSummary', 'telescope', 'EVLA')
context.set_state('ProjectSummary', 'piname', 'unknown')
context.set_state('ProjectSummary', 'proposal_title', 'unknown')
try:
    hifv_importdata(nocopy=True, vis=['VLASS1.1.sb34674058.eb34686456.58070.889693784724.ms'], session=['session_1'])
    hif_editimlist(parameter_file='parameter.list')
    hif_transformimagedata(datacolumn='corrected', modify_weights=False, clear_pointing=True)
    hif_makeimages(hm_masking='none', hm_cleaning='manual')
    hifv_pbcor(pipelinemode="automatic")
    hif_makermsimages(pipelinemode="automatic")
    hif_makecutoutimages(pipelinemode="automatic")
finally:
    h_save()
```

```
editmode='add'
imagename='VLASS1.1.ql.T11t29.J185801+033000.10.2048.v1'
phasecenter='J2000 18:58:1.482 +03.30.0.0000'
search_radius_arcsec=235.0
imsize=[5760,5760]
cycleniter=75
```

Parameters to change image size

Change # of iterations between major cycles

Default values:

imsize=[7290,7290]

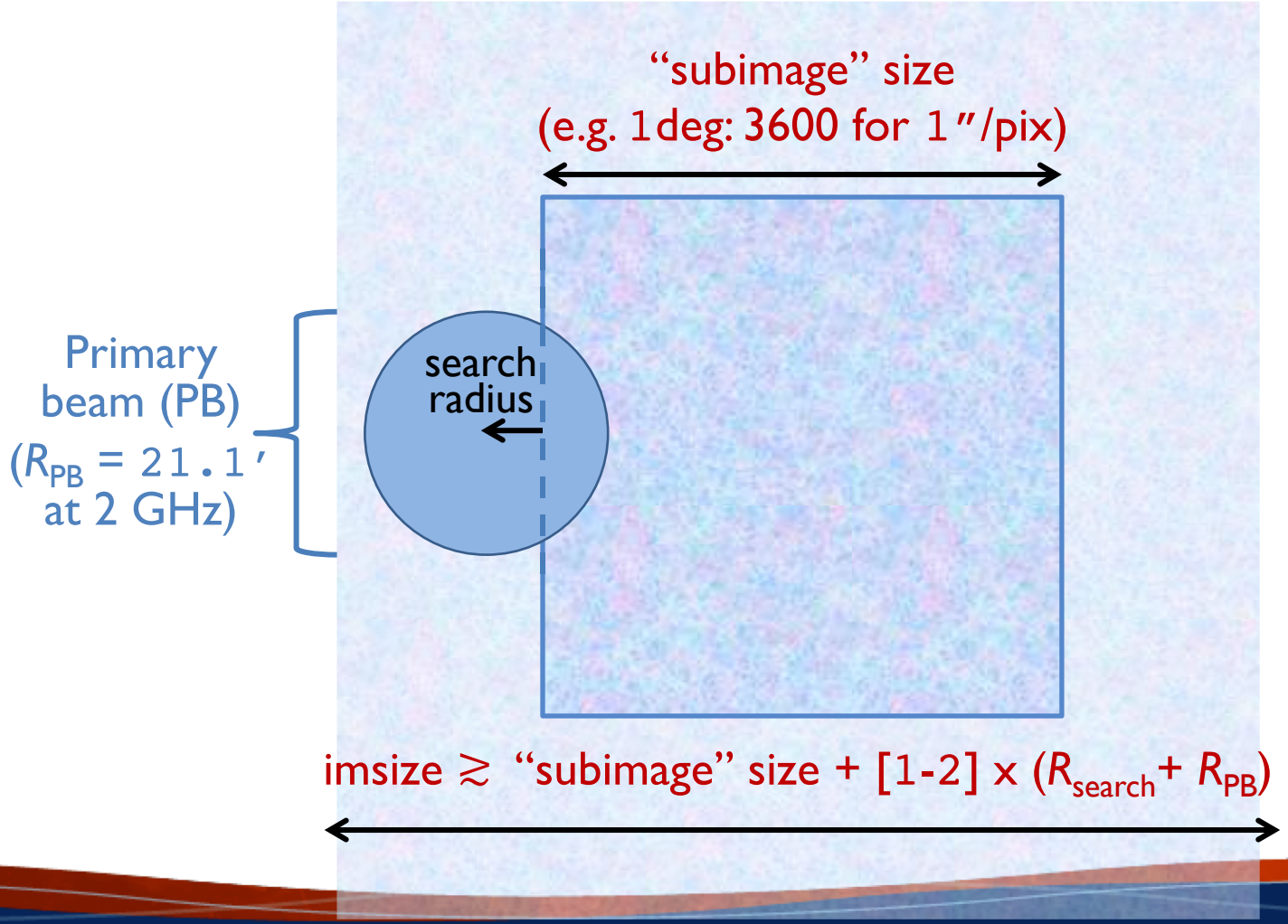
search_radius_arcsec=1000

cycleniter=500

What if you want a smaller image?

```
search_radius_arcsec=235.0
imsize=[5760,5760]
```

VLASS team's parameters for "smaller" images (still > 1x1 deg^2)



What other input parameters can I modify?

1. Check one of the imaging weblogs: "hif_editimlist":

NRAO

Home | By Topic | By Task

Task Summaries

Task
1. **hifv_importdata**: Register VLA measurement sets with the pipeline
2. **hif_editimlist**: Editimlist
3. **hif_transformimagedata**: Transformimagedata
4. **hif_makeimages**: Make target per-spw continuum images
5. **hifv_pbcor**: Pbcor
6. **hif_makermsimages**: Makermsimages
7. **hif_makecutoutimages**: Makecutoutimages

2. Edit image list

Image list settings

Imaging heuristics mode	VLASS-QL
Image name	VLASS1.1.ql.T13t05.J024201+083000.10.2048.v2
Phase center	J2000 02:42:1.179 +08.30.0.0000
Cell size	1.0arcsec
Image size	[7290, 7290]
Search buffer radius (arcsec)	1000.0
Number of fields	338
scales	[0]
sensitivity	0.0
spw	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17
spwsel_topo	None
nterms	2
threshold	None
nbin	None
conjbeams	False

What other input parameters can I modify?

2. Look at the CASA logs for hifv_editimlist

```
setask::      Starting execution for stage 2
imlist.editimlist::      heuristics =
imlist.editimlist::      phasecenter = J2000 02:42:1.179 +08.30.0.0000
imlist.editimlist::      scales = [0]
imlist.editimlist::      sensitivity = 0.0
imlist.editimlist::      spw = 2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17
imlist.editimlist::      imagename = VLASS1.1.ql.T13t05.J024201+083000.10.2048.v2
imlist.editimlist::      spwsel_topo = None
imlist.editimlist::      nterms = 2
imlist.editimlist::      threshold = None
imlist.editimlist::      nbin = None
imlist.editimlist::      imsize = [7290, 7290]
imlist.editimlist::      width = None
imlist.editimlist::      conjbeams = False
imlist.editimlist::      cell = 1.0arcsec
imlist.editimlist::      start = None
imlist.editimlist::      spwsel_lsrk = None
imlist.editimlist::      gridder = mosaic
imlist.editimlist::      cycleniter = 500
imlist.editimlist::      field = 4577,4578,4579,4580,4581,4582,4583,4584,4585,4586,4
610,4611,4612,4613,4614,4615,4616,4617,4618,4619,4620,4621,4622,4623,4624,4625,4626
96,4997,4998,4999,5000,5001,5002,5003,5004,5007,5008,5009,5010,5011,5012,5013,50
5385,5386,5387,5388,5389,5390,5391,5392,5393,5394,5395,5396,5397,5398,53
```

2. Edit image list

Image list settings

Imaging heuristics mode	VLASS-QL
Image name	VLASS1.1.ql.T13t05.J024201+083000.10.2048.v2
Phase center	J2000 02:42:1.179 +08.30.0.0000
specmode	mfs
uvtaper	[]

Pipeline QA

Input Parameters

Tasks Execution Statistics

CASA logs for stage 2

- View or download stage2/casapy.log (5.1 KB)

But suppose...

I want to download the actual VLASS *data*. How do I know which file to download from the archive?

WARNING: be wary... unless you really know what you are doing

Identifying a data set (SB + EB) you want

1. Go to the calibration/compression weblog for your tile of interest.

VLA Sky Survey Pipeline Weblogs

Weblogs for VLA Sky Survey Calibration and Imaging Pipelines are used by VLASS Operations for Quality Assurance. They are named after the pipeline Job ID. Weblogs associated with individual Quick Look image products are archived with the Quick Look images.

Name

Parent Directory
VLASS1.1_T07t02.T08t02_P21516v3_2018_05_04T18_25_13.146/
VLASS1.1_T07t07.T07t10_P21434v2_2018_02_28T19_45_10.382/
VLASS1.1_T07t08.T07t11_P21352v2_2018_02_15T19_01_59.909/
VLASS1.1_T07t09.T07t12_P21188v2_2018_02_23T21_30_29.613/
VLASS1.1_T07t16.T08t16_P22130v2_2018_02_09T20_33_35.170/
VLASS1.1_T07t17.T08t17_P24273v2_2018_02_09T18_55_50.697/
VLASS1.1_T07t18.T08t18_P22294v2_2018_03_02T20_57_00.639/
VLASS1.1_T07t22.T07t23.T07t24_P21598v3_2018_04_24T20_46_51.790/
VLASS1.1_T07t31.T07t33_P17483v2_2018_04_23T14_41_13.643/
VLASS1.1_T07t32.T07t01.T07t03_P16513v3_2018_04_23T18_17_37.303/
VLASS1.1_T08t01.T08t03_P18673v2_2018_04_20T17_16_50.624/
VLASS1.1_T08t07.T08t10_P18591v2_2018_04_20T19_35_29.196/
VLASS1.1_T08t08.T08t11_P21024v2_2018_02_23T22_33_06.299/

Identifying a data set (SB + EB) you want

2. Click on the pipeline directory

Name	Last modified	Size	Description
Parent Directory		-	
pipeline-20180504T193715/	04-May-2018 16:09	-	

3. Click on the html directory

Name
Parent Directory
html/
saved_state/

Identifying a data set (SB + EB) you want

4. Get SB and EB identification from the weblog Observation Summary

Home | By Topic | By Task | VLA/TSKY0001

Observation Overview

Project	uid://evla/pdb/33997662
Principal Investigator	Dr. Vlass Scientist
Observation Start	2017-12-13 00:57:49 UTC
Observation End	2017-12-13 05:07:17 UTC

Pipeline Summary

Pipeline Version	41154 (Pipeline-CASA51-P2-B)
CASA Version	5.1.2-4 r40000
Pipeline Start	2018-05-04 19:37:15 UTC
Execution Duration	1 day, 23:36:44

Observation Summary

			Time (UTC)			Baseline Length			
Measurement Set	**Receivers**	**Num Antennas**	**Start**	**End**	**On Source**	**Min**	**Max**	**RMS**	**Size**
Scheduling Block ID: uid://evla/pdbsb/34787846									
Sessi ession_1									
VLASS1.1.sb34787846.eb34789515.58100.03466122685.ms	13cm (S)	27	2017-12-13 00:57:49	2017-12-13 05:07:17	3:17:52	243.1 m	11.1 km	4.8 km	367.5 GB

(e.g., VLASS1.1.sb34787846.eb34789515.58100.03466122685.ms)

Use the [*new*] archive interface to download raw [*and/or calibrated*] data:

archive-new.nrao.edu

Old NRAO Archive Interface

archive.nrao.edu

NRAO Science Data Archive : Advanced Search Tool

Historical VLA, Jansky VLA, VLBA and GBT Data Products

Submit Query | Check Query | Clear Form

Output Control Parameters :

Choose Query Return Type :
- Download Archive Data Files
- VLA Observations Summary
- List of Observation Scans
- List of Projects

Output Tbl Format: HTML
Max Output Tbl Rows: NO LIMIT
Sort Order Column 1: Starttime Asc
Sort Order Column 2: Starttime Asc

General Search Parameters :

Telescopes: All, Jansky VLA, Historical VLA, VLBA, GBT

Project Code (GBT: AGBT12A_055, JVLA: 12A-256)
Project Session
Dates From
Observer Name
Archive File ID (partial strings allowed)
To (2010-06-21 14:20:30)

Position Search :

Target Name
Search Type: SIMBAD or NED
Min. Exposure (secs)
RA or Longitude (04h33m11.1s or 68.29d)
DEC or Latitude (05d21'15.5" or 5.352d)
Equinox: J2000
Search Radius: 1.0' (1d00'00" or 0.2d)
- OR -
Check for automatic VLA field-of-view, freq. dependent.??

Observing Configurations Search :

Telescope Config: All, A, AB, BnA, B, BC, CnB, C, CD, DnC, D, DA
Sub_array: All, 1, 2, 3, 4, 5
Polarization: ALL
Data Type: ALL
Observing Bands: All, 4, P, L, S, C, X, U, K, Ka, Q, W
Frequency Range (In MHz : 1665.401 - 1720.500)

Enter Locked Project Access key :

Unique keywords may be used to unlock proprietary data from individual observing projects. Contact the NRAO Data Analysts for project access keys.

Submit Query | Check Query | Clear Form

New NRAO Archive Interface

archive-new.nrao.edu

Warning

This version of the archive interface, developed to support the VLA Sky Survey, provides data from the Jansky VLA, ALMA and VLBA: Legacy VLA and GBO data has not been considered in this release. Also, loading VLBA metadata into the system is ongoing and currently incomplete.

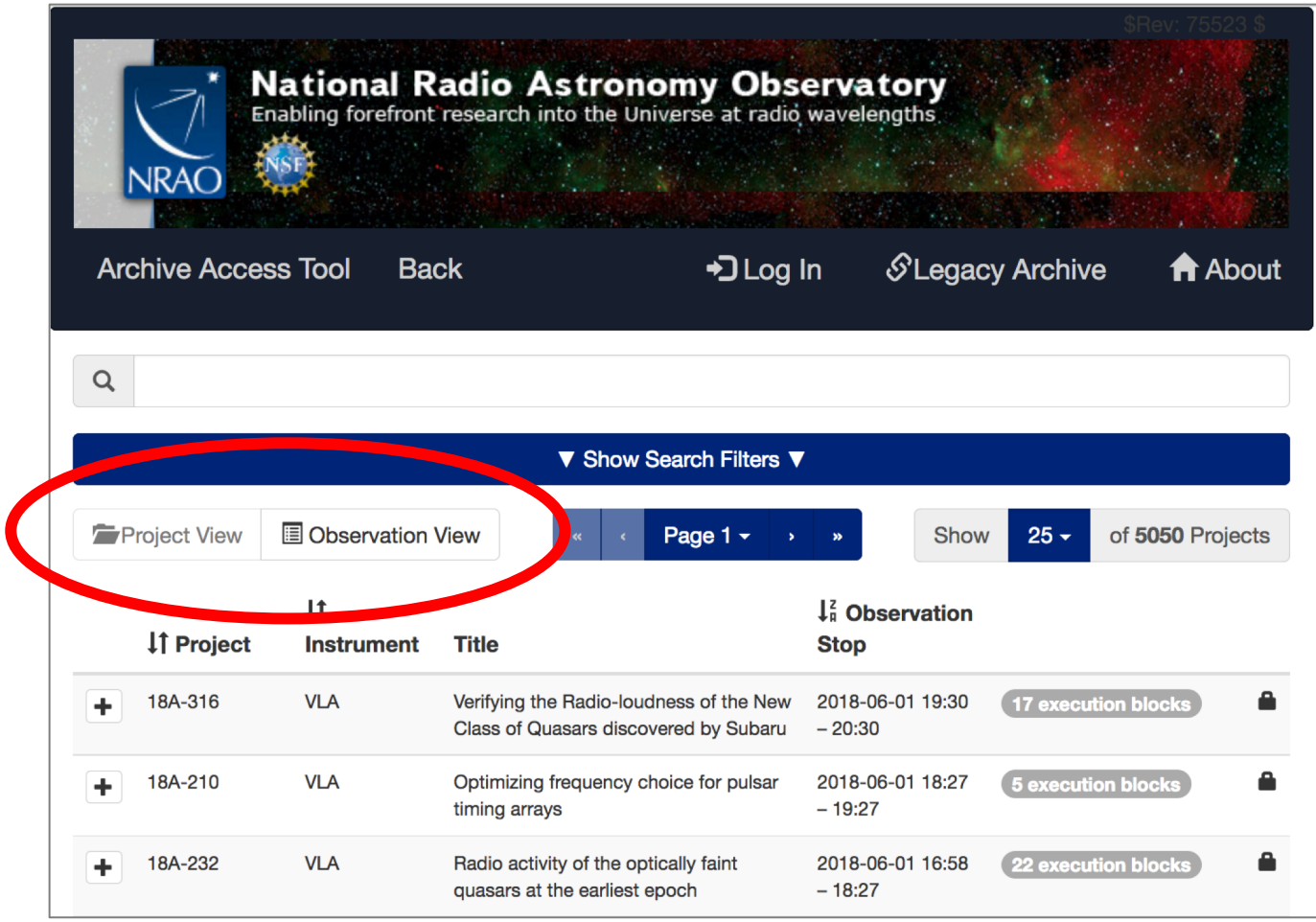
Users seeking data not provided here are encouraged to use either the legacy NRAO archive or the ALMA archive. Please contact the science help desk with questions

OK ← **Acknowledge**

New NRAO Archive Interface

archive-new.nrao.edu

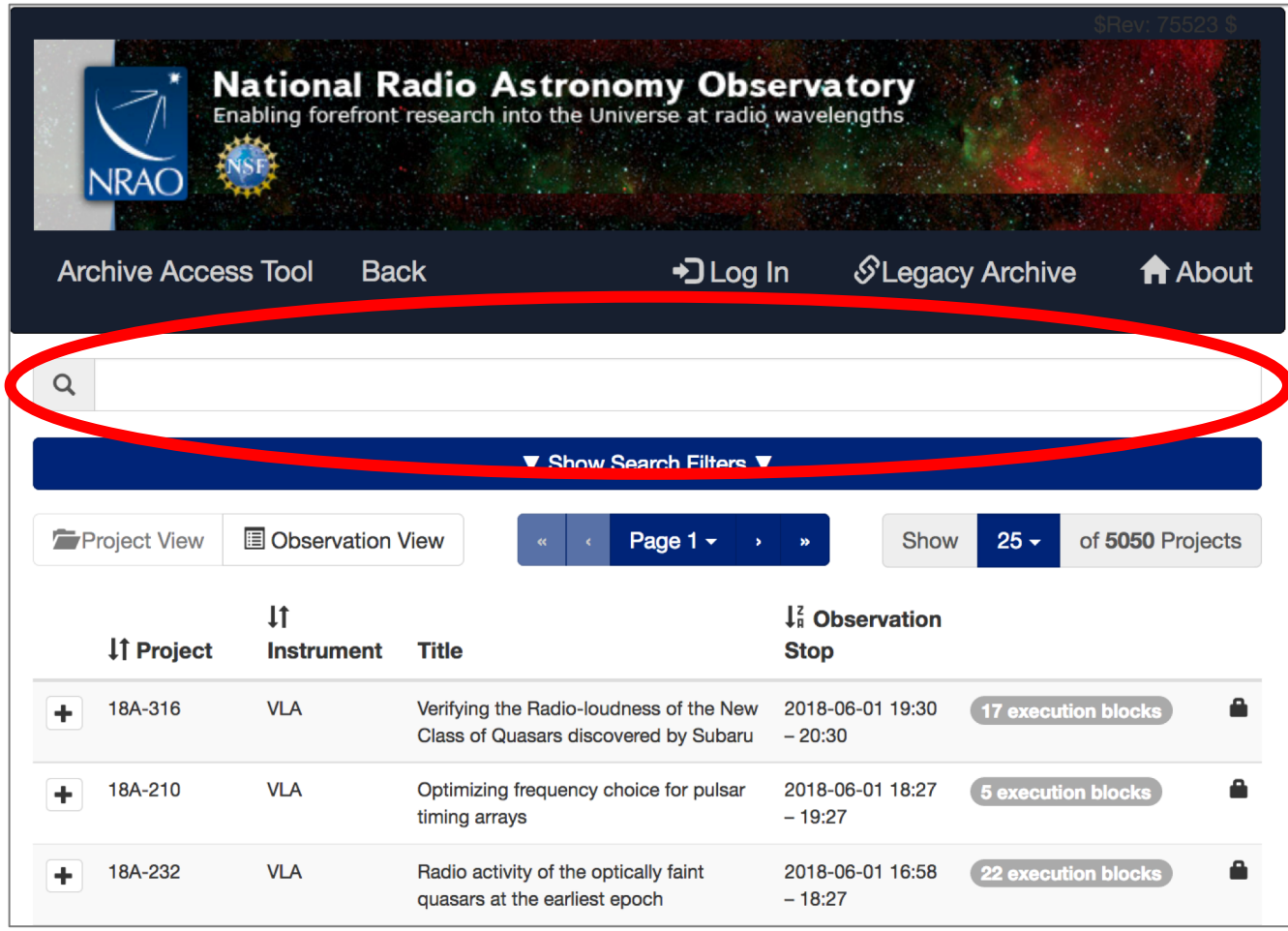
View by project or by individual observation



New NRAO Archive Interface

archive-new.nrao.edu

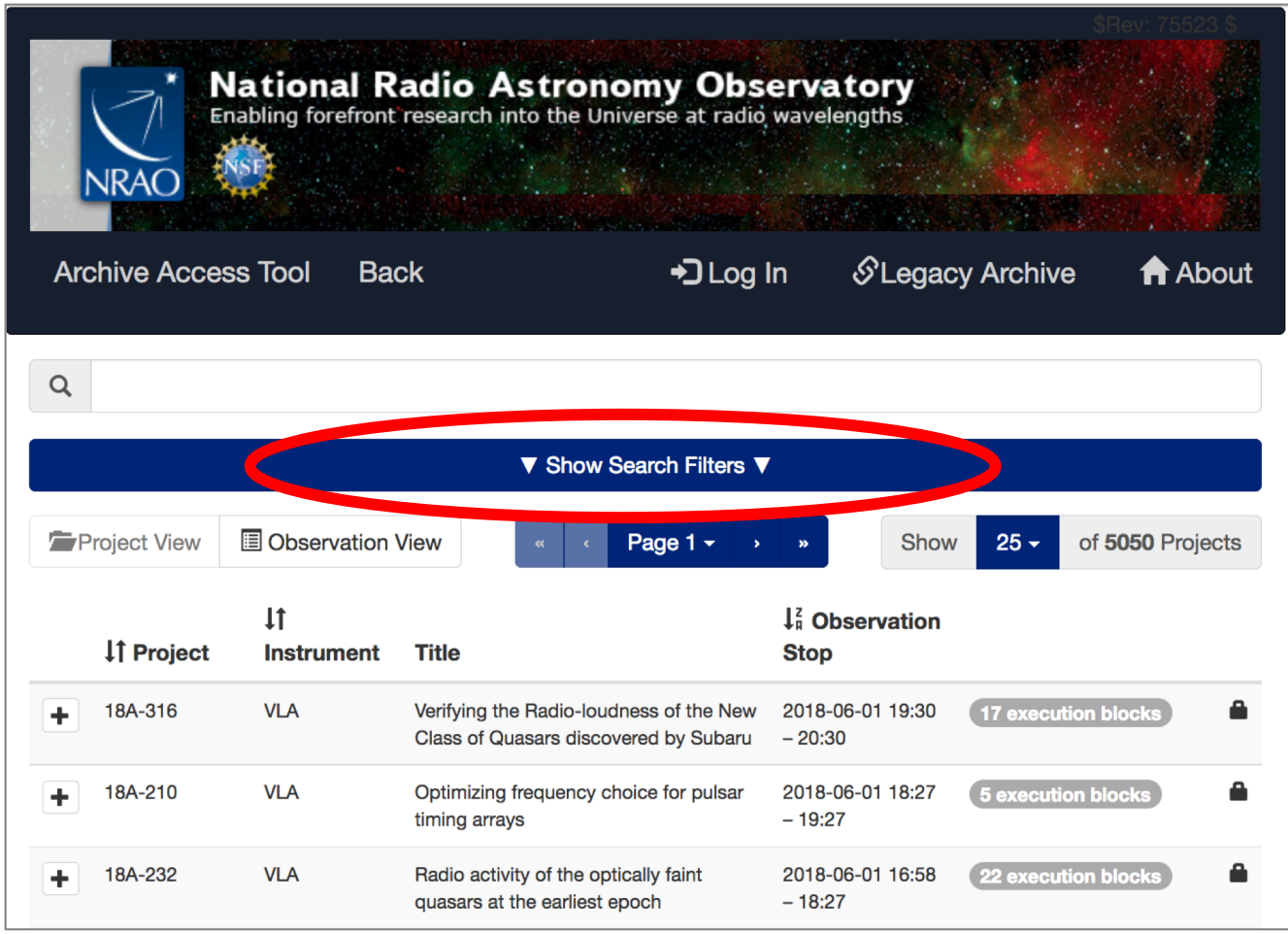
Search text matches in abstract, title, project code, observation ID, author, or source.



New NRAO Archive Interface

archive-new.nrao.edu

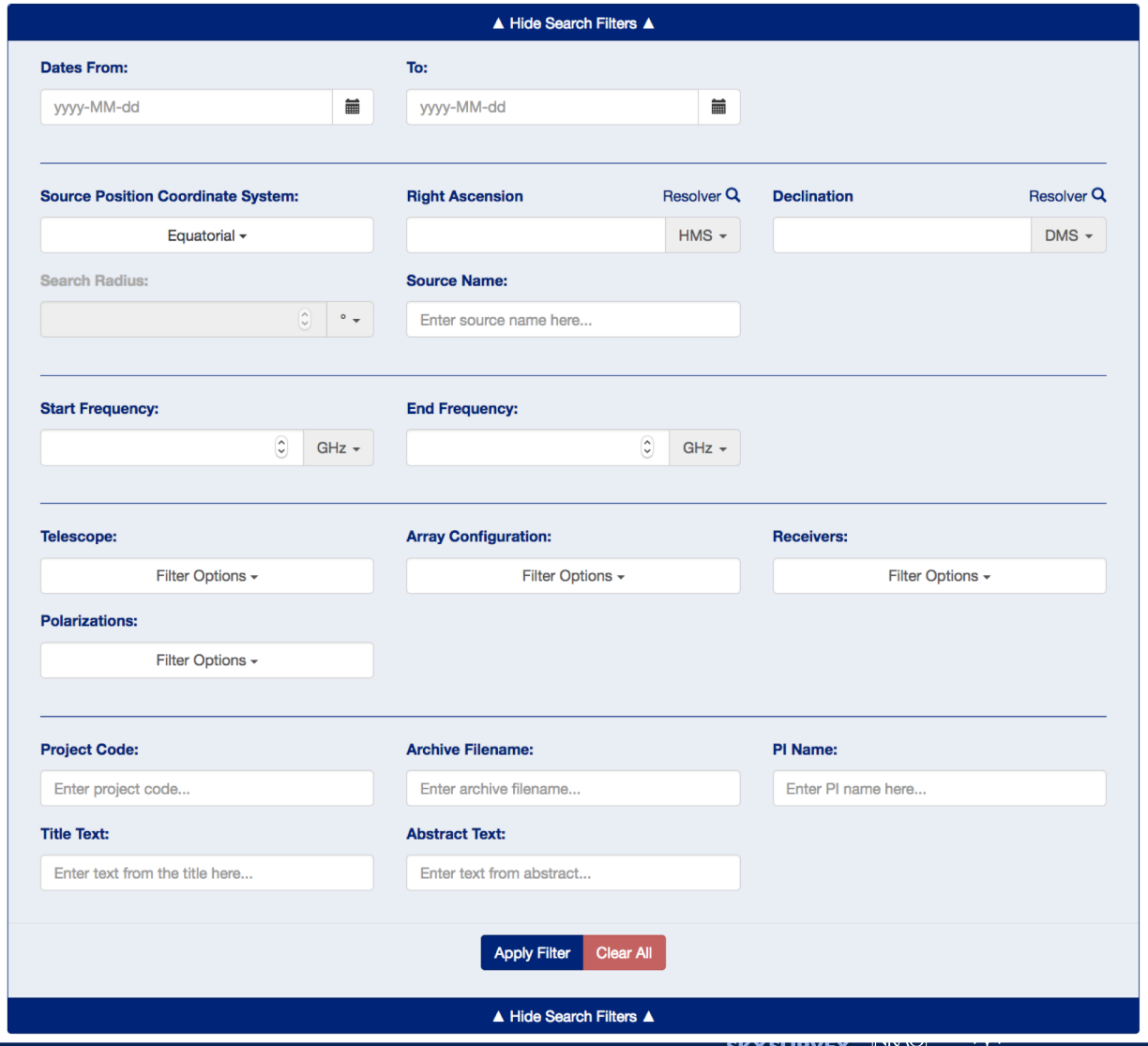
Click to show individual search filters



New NRAO Archive Interface

archive-new.nrao.edu

Search by:
date, position,
frequency, telescope,
project, code etc.



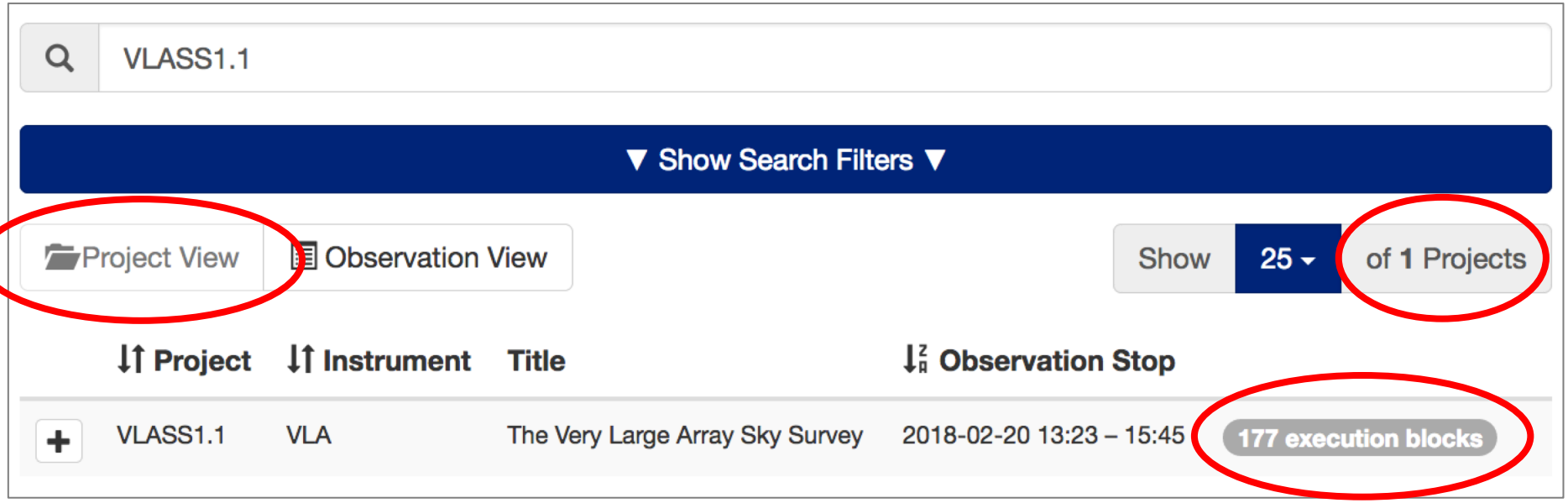
VLASS example

- Project code for 1st observing cycle: `VLASS1.1`

  VLASS1.2: 2nd half of sky; 2nd observing cycle, 1st epoch

  VLASS2.1: 1st half of sky; 3rd observing cycle, 2nd epoch

  .....etc. through VLASS 3.2



Observation view in the archive interface

Click on "Observation View" to see individual execution blocks

VLASS1.1

▼ Show Search Filters ▼

Project View | Observation View

« ‹ Page 1 › »

Show 25 of 177 Observations

Archive File	Project	Instrument	Observation Start	Observation Stop	File Size	Array Config	Bands	Type	Cals	Scans	
VLASS1.1.sb35118798.eb35120996.58169.55511674768	VLASS1.1	VLA	18-02-20 13:23:44	18-02-20 15:45:35	217.266 GB	BnA	S, X	visibility	1	111	Request Data
VLASS1.1.sb35116607.eb35119115.58168.767963136575	VLASS1.1	VLA	18-02-19 18:26:51	18-02-19 20:40:51	204.574 GB	BnA	S, X	visibility	1	114	Request Data
VLASS1.1.sb34911154.eb35113630.58167.94820277778	VLASS1.1	VLA	18-02-18 23:29:58	18-02-19 07:11:57	727.839 GB	BnA	S, X	visibility	1	429	Request Data
VLASS1.1.sb34906851.eb35113389.58167.585474039355	VLASS1.1	VLA	18-02-18 14:06:30	18-02-18 22:16:30	772.553 GB	BnA	S, X	visibility	1	435	Request Data
VLASS1.1.sb34896437.eb35113379.58167.31986631945	VLASS1.1	VLA	18-02-18 07:42:33	18-02-18 11:39:11	368.376 GB	BnA	S, X	visibility	1	219	Request Data

Observation view in the archive interface

Identify the data set ***but note the size!!***

VLASS1.1

▼ Show Search Filters ▼

Project View | Observation View

« ‹ Page 1 › »

Show 25 of 177 Observations

Archive File	Project	Instrument	Observation Start	Observation Stop	File Size	Array Config	Bands	Type	Cals	Scans	
VLASS1.1.sb35118798.eb35120996.58169.55511674768	VLASS1.1	VLA	18-02-20 13:23:44	18-02-20 15:45:35	217.266 GB	BnA	S, X	visibility	1	111	Request Data
VLASS1.1.sb35116607.eb35119115.58168.767963136575	VLASS1.1	VLA	18-02-19 18:26:51	18-02-19 20:40:51	204.574 GB	BnA	S, X	visibility	1	114	Request Data
VLASS1.1.sb34911154.eb35113630.58167.94820277778	VLASS1.1	VLA	18-02-18 23:29:58	18-02-19 07:11:57	727.839 GB	BnA	S, X	visibility	1	429	Request Data
VLASS1.1.sb34906851.eb35113389.58167.585474039355	VLASS1.1	VLA	18-02-18 14:06:30	18-02-18 22:16:30	772.553 GB	BnA	S, X	visibility	1	435	Request Data
VLASS1.1.sb34896437.eb35113379.58167.31986631945	VLASS1.1	VLA	18-02-18 07:42:33	18-02-18 11:39:11	368.376 GB	BnA	S, X	visibility	1	219	Request Data

Observation view in the archive interface

Click here to download ***calibrator scans only***

VLASS1.1

▼ Show Search Filters ▼

Project View | Observation View

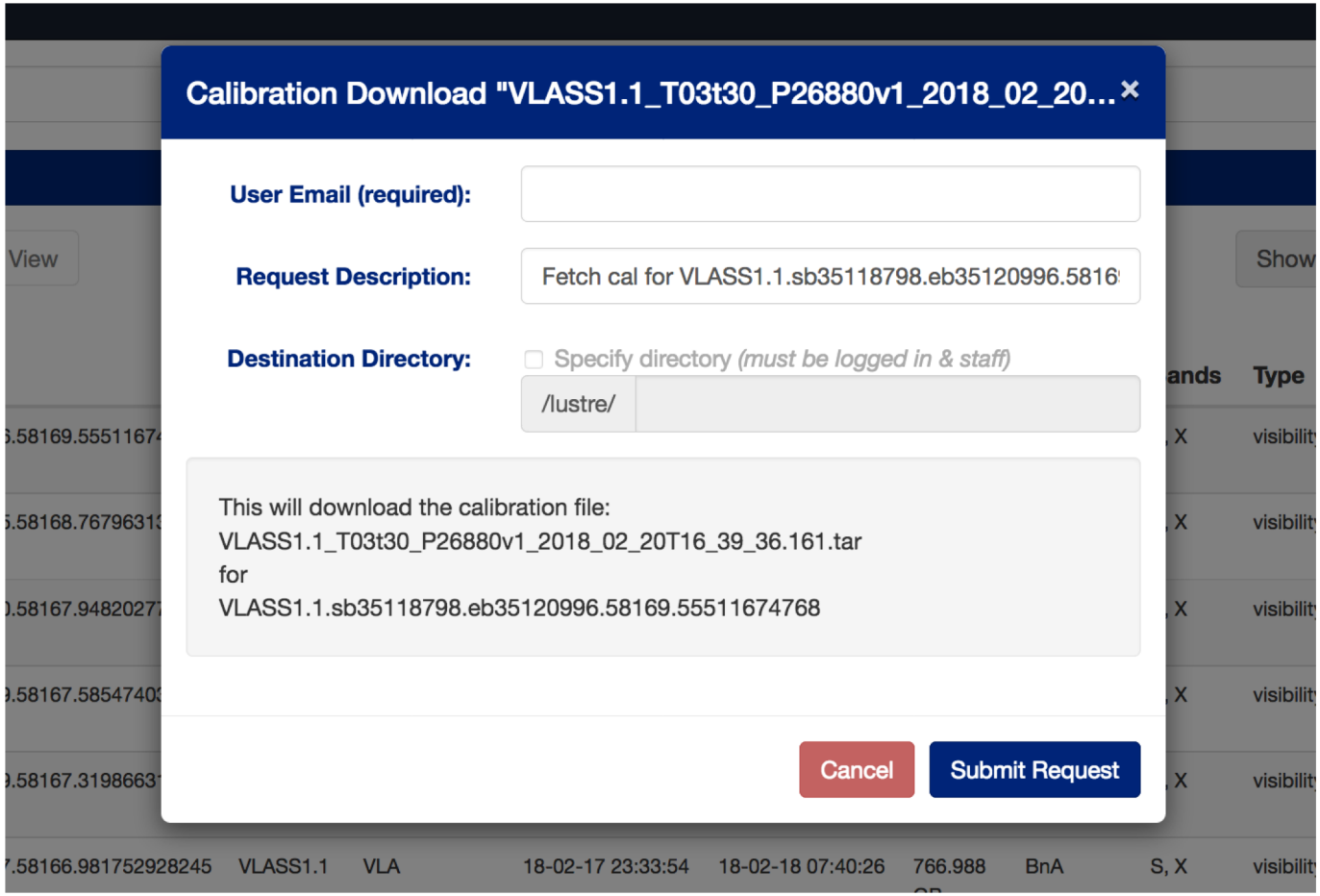
« ‹ Page 1 › »

Show 25 of 177 Observations

Archive File	Project	Instrument	Observation Start	Observation Stop	File Size	Array Config	Bands	Type	Cals	Scans	
VLASS1.1.sb35118798.eb35120996.58169.55511674768	VLASS1.1	VLA	18-02-20 13:23:44	18-02-20 15:45:35	217.266 GB	BnA	S, X	visibility	1	111	Request Data
VLASS1.1.sb35116607.eb35119115.58168.767963136575	VLASS1.1	VLA	18-02-19 18:26:51	18-02-19 20:40:51	204.574 GB	BnA	S, X	visibility	1	14	Request Data
VLASS1.1.sb34911154.eb35113630.58167.94820277778	VLASS1.1	VLA	18-02-18 23:29:58	18-02-19 07:11:57	727.839 GB	BnA	S, X	visibility	1	429	Request Data
VLASS1.1.sb34906851.eb35113389.58167.585474039355	VLASS1.1	VLA	18-02-18 14:06:30	18-02-18 22:16:30	772.553 GB	BnA	S, X	visibility	1	435	Request Data
VLASS1.1.sb34896437.eb35113379.58167.31986631945	VLASS1.1	VLA	18-02-18 07:42:33	18-02-18 11:39:11	368.376 GB	BnA	S, X	visibility	1	219	Request Data

Graphic User Interface for Calibrator download

Size: expect couple/few GBs for calibrator-only scans



Observation view in the archive interface

Click here to download a full execution data set *(one at a time...)*

VLASS1.1

▼ Show Search Filters ▼

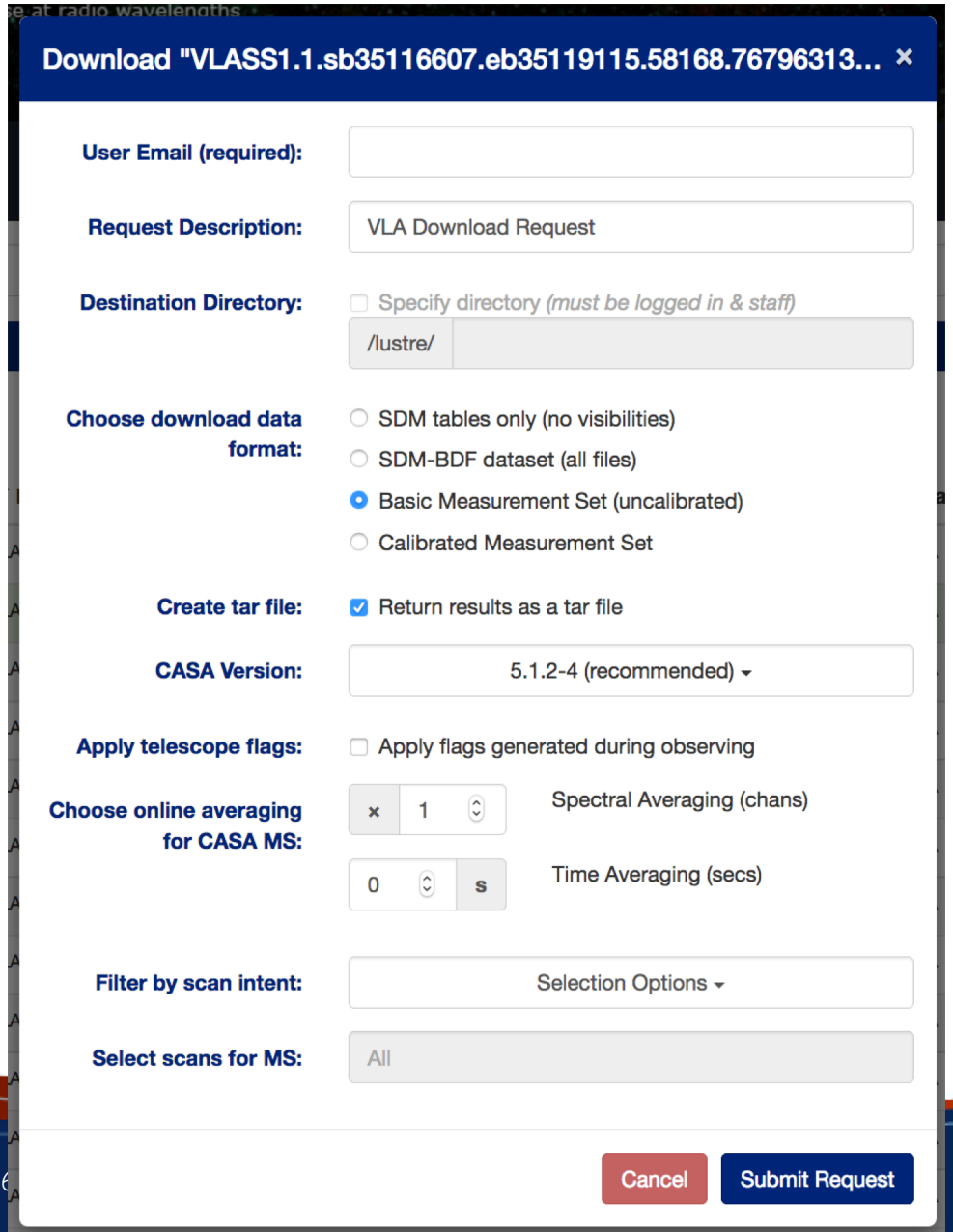
Project View | Observation View

« ‹ Page 1 › »

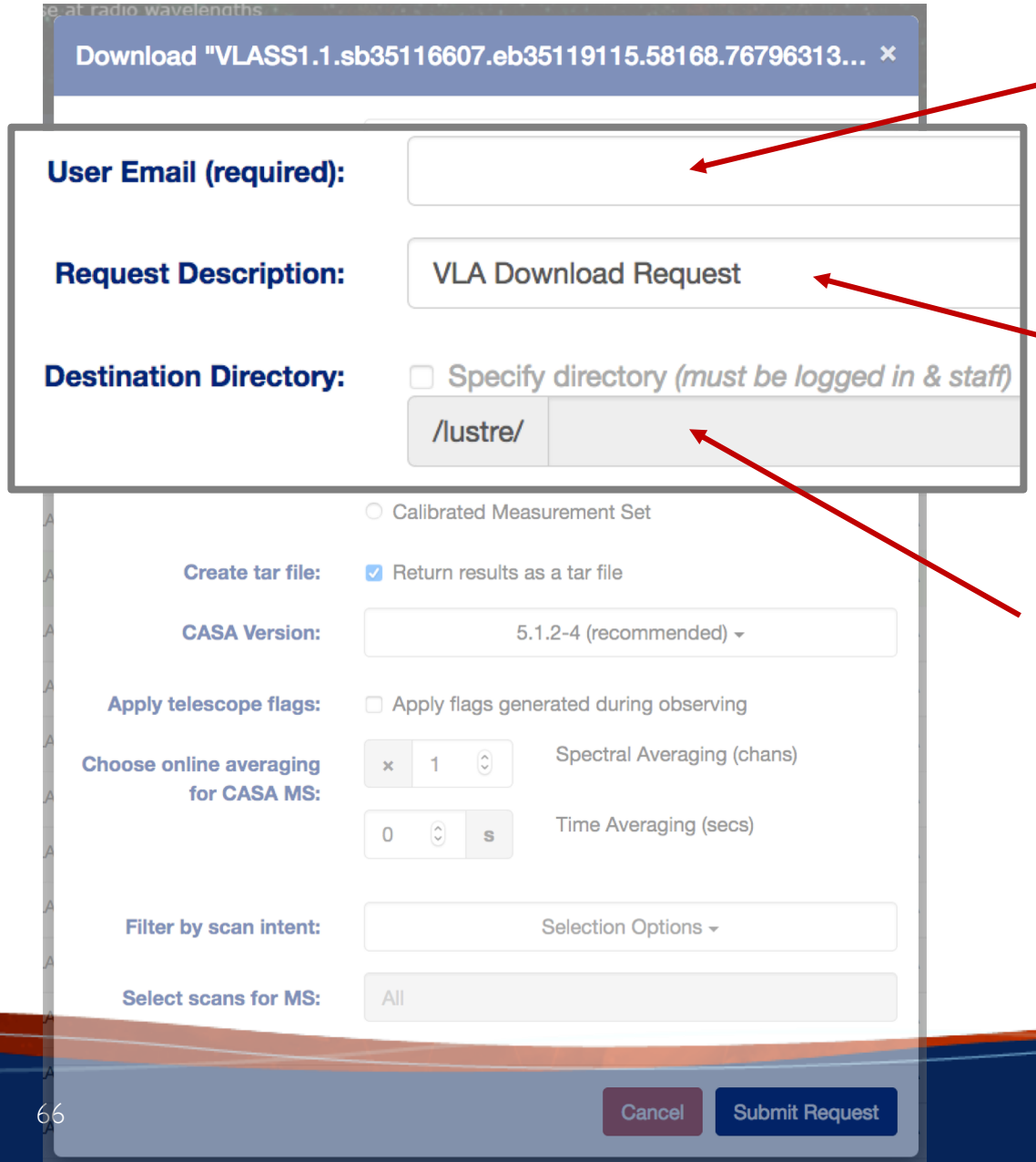
Show 25 of 177 Observations

Archive File	Project	Instrument	Observation Start	Observation Stop	File Size	Array Config	Bands	Type	Cals	Scans	
VLASS1.1.sb35118798.eb35120996.58169.55511674768	VLASS1.1	VLA	18-02-20 13:23:44	18-02-20 15:45:35	217.266 GB	BnA	S, X	visibility	1	111	Request Data
VLASS1.1.sb35116607.eb35119115.58168.767963136575	VLASS1.1	VLA	18-02-19 18:26:51	18-02-19 20:40:51	204.574 GB	BnA	S, X	visibility	1	114	Request Data
VLASS1.1.sb34911154.eb35113630.58167.94820277778	VLASS1.1	VLA	18-02-18 23:29:58	18-02-19 07:11:57	727.839 GB	BnA	S, X	visibility	1	429	Request Data
VLASS1.1.sb34906851.eb35113389.58167.585474039355	VLASS1.1	VLA	18-02-18 14:06:30	18-02-18 22:16:30	772.553 GB	BnA	S, X	visibility	1	435	Request Data
VLASS1.1.sb34896437.eb35113379.58167.31986631945	VLASS1.1	VLA	18-02-18 07:42:33	18-02-18 11:39:11	368.376 GB	BnA	S, X	visibility	1	219	Request Data

Graphic User Interface for full EB download



Graphic User Interface for full EB download

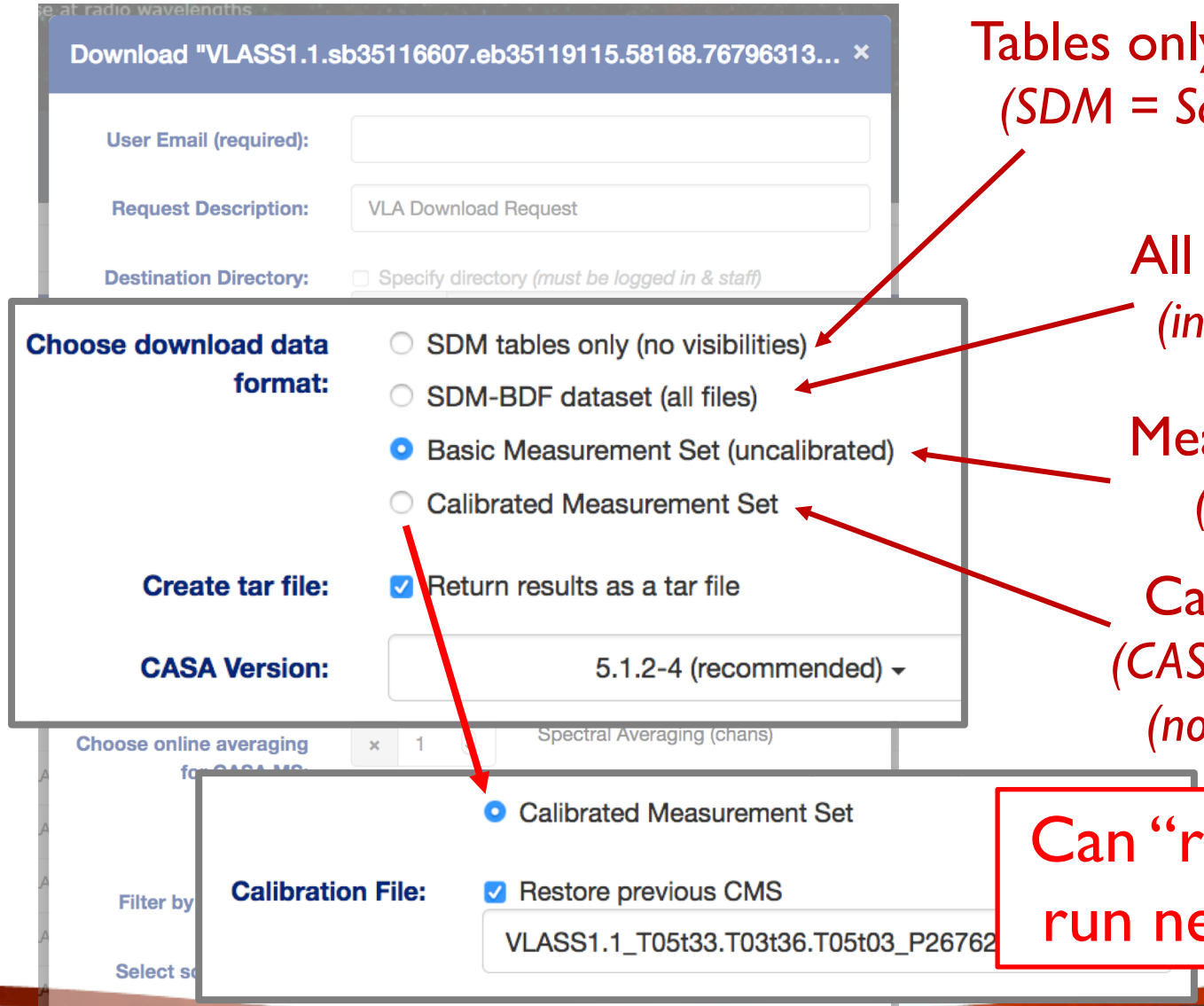


Email required (for notifications)

Editable (useful in case of multiple concurrent download requests)

Ignore for now *(NRAO staff only)*

Choice of data format [and CASA version]



Tables only = metadata only
(SDM = Science Data Model)

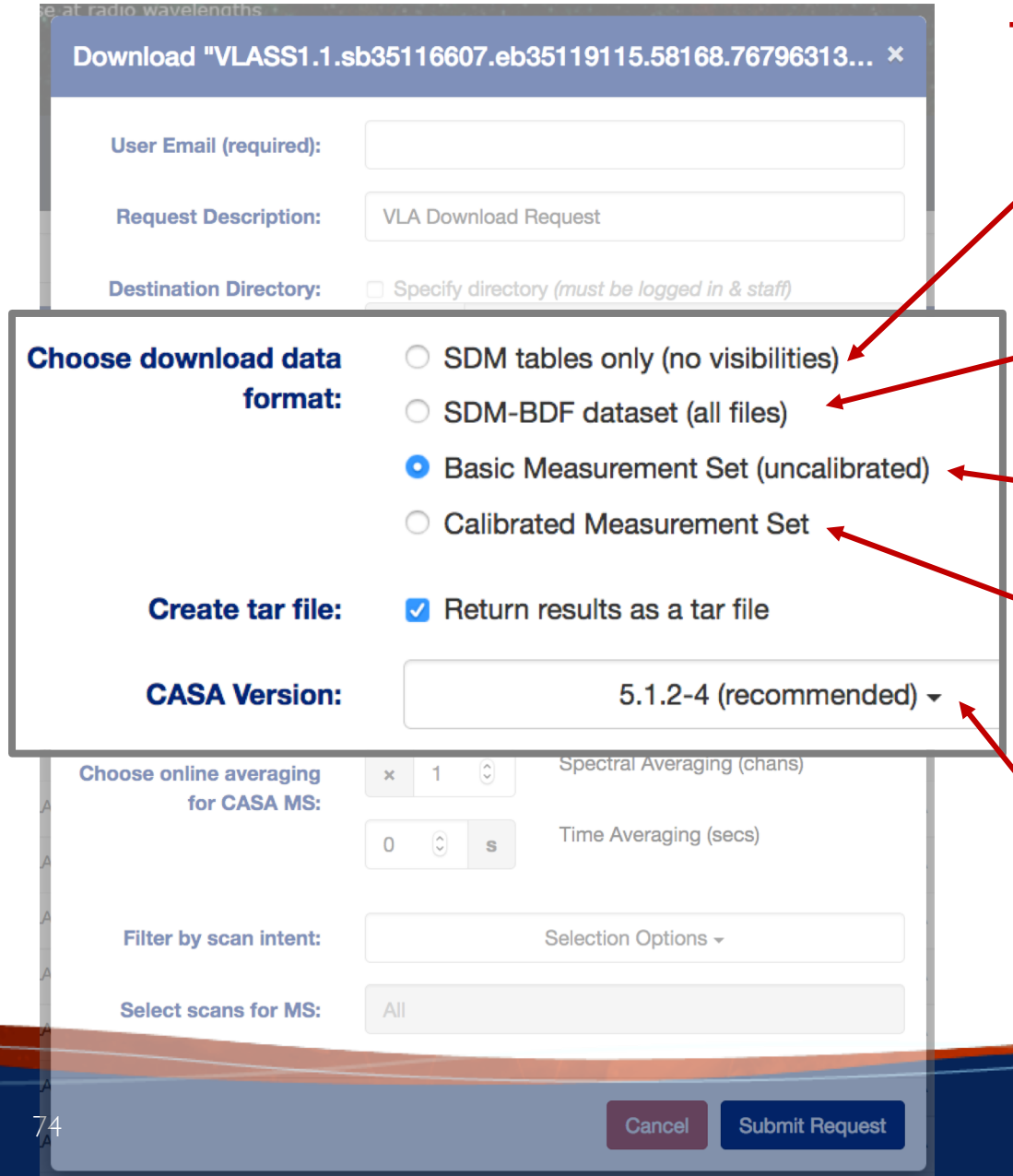
All tables + visibilities
(in native data format)

Measurement Set (ms)
(CASA data format)

Calibrated ms
(CASA data format)
(not fully tested)

Can "restore" *OR* run new pipeline

Choice of data format [and CASA version]



Tables only = metadata only
(SDM = Science Data Model)

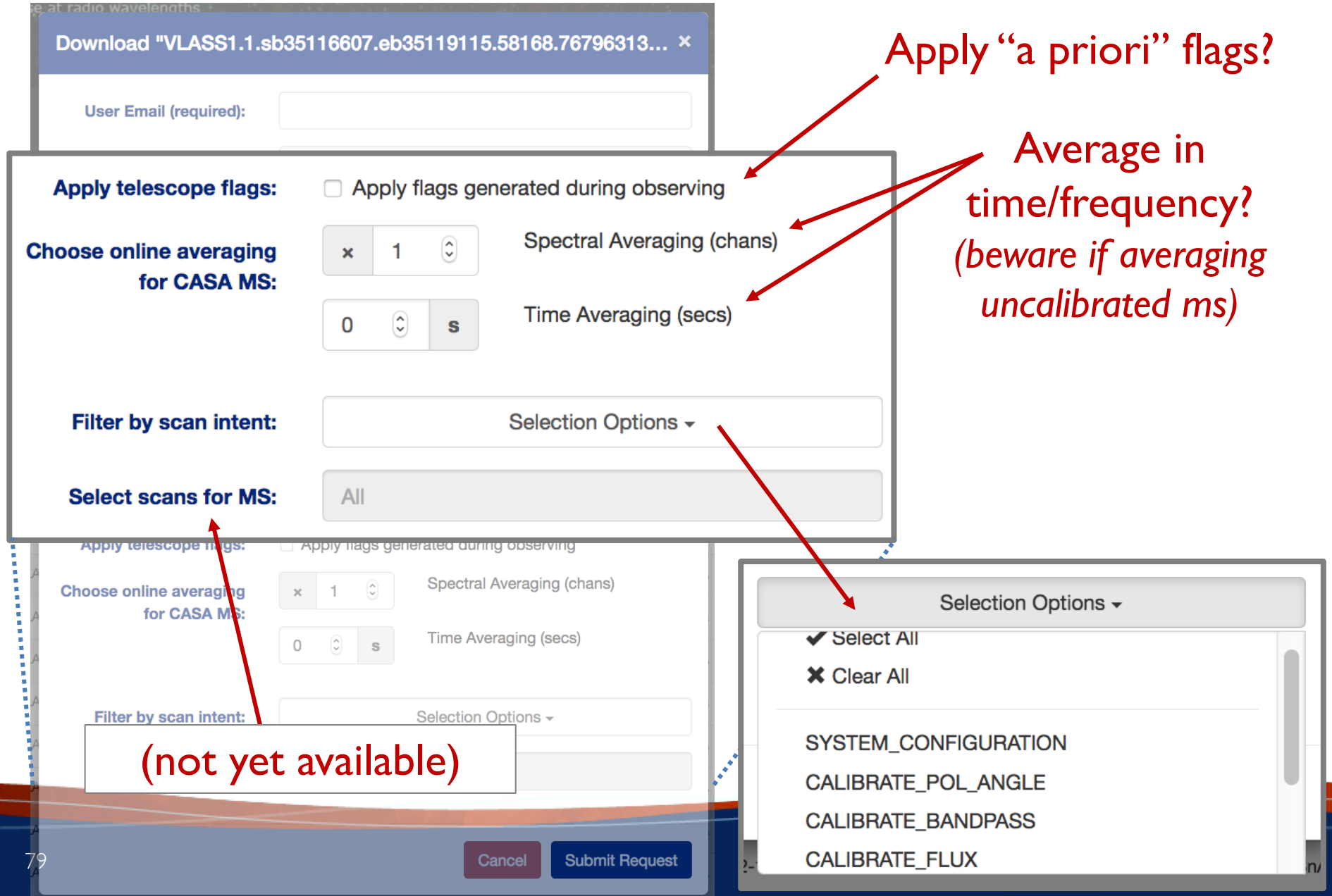
All tables + visibilities
(in native data format)

Measurement Set (ms)
(CASA data format)

Calibrated ms
(CASA data format)
(not fully tested)

CASA version used to create ms [and calibrate]

Further selections for *ms* [not SDM] download



Apply "a priori" flags?

Average in time/frequency?
(beware if averaging uncalibrated ms)

(not yet available)

Wait for your data...

Request #3855948 by Anonymous User

VLA Download Request

page refreshes automatically when request is completed

Requested Projects / OUSets / Executionblocks

Data entities 1-1 of 1

Project / OUSet / Executionblock	File	Size
Please wait, Requested Datasets list under construction.		
Data entities 1-1 of 1		-

Watch above page or watch your email...

Request #3855948 by Anonymous User

VLA Download Request

Requested Projects / OUSets / Executionblocks

Data entities 1-1 of 1

Project / OUSet / Executionblock	File	Size
VLASS1.1.sb35118798.eb35120996.58169.55511674768		
	MD5SUMS	100B
	VLASS1.1.sb35118798.eb35120996.58169.55511674768.3855948.tar.gz	178.9MB
Data entities 1-1 of 1		*178.9MB*

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